

**Q. What causes excessive smoke?**

**A.** A vehicle that is smoking excessively is using too much fuel. This wasted fuel washes away the lube oil film on your cylinder walls and leaves behind carbon particles which are highly abrasive. The result is more frequent overhauls.

The following is a partial list of common excessive smoke causes:

- Restricted filters
- Contaminated fuel
- Misadjusted injection timing
- Clogged or worn injectors
- Defective or tampered emissions control devices
- Overcooling (open thermostat, stuck fan clutch)
- Oil level overfull
- High exhaust back pressure
- Defective turbocharger

**Q. What basic repairs will improve exhaust smoke:**

**A.** Below listed are some basic repairs that could improve exhaust smoke:

- Replace air filter element if needed
- Check and adjust emissions control equipment
- Check oil level and ensure correct type recommended for your engine
- Tune up, adjust timing, set valve clearance, rack travel, etc.
- Ensure correct operation of cooling system
- Repair restricted/dented exhaust
- Ensure good grade of fuel

**Keep your engine tuned according to factory specifications. A good preventative maintenance program will save you money in fuel and corrective maintenance.**

The exhaust smoke level is measured in terms of a percentage opacity. As the amount of particulate matter in the exhaust increases, the opacity of the exhaust also increases. A clear exhaust has 0 percent opacity and a black exhaust that blocks out all light has 100 percent opacity.

**The standards are:**

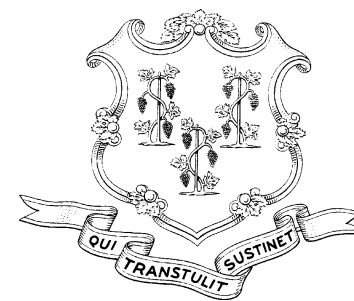
<u>Model Year of Truck</u>	<u>Opacity Standard</u>
1991 & Newer	40 percent
1974 to 1990	55 percent
1973 & Older	70 percent

A truck passes, if its smoke measurement is ***at or below*** the opacity standard for its model year.

**DO NOT TAMPER WITH YOUR ENGINE  
IT'S ILLEGAL,  
CAUSES POLLUTION,  
WASTES FUEL  
AND SHORTENS ENGINE LIFE.**

If you have any questions, please contact:  
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## **Connecticut's Heavy Duty Diesel Emissions Program**



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**Q. What is Connecticut's Heavy Duty Diesel Emissions Program?**

**A.** This is a diesel opacity testing program required by Connecticut General Statutes and is being undertaken by the Connecticut Department of Motor Vehicles.

**Q. What types of vehicles are being tested?**

**A.** All diesel-powered "commercial motor vehicles" which include:

1. Commercial motor vehicles over 26,000 Gross Vehicle Weight Rating
2. Commercial motor vehicles designed to transport sixteen or more passengers (including the driver) and,
3. Commercial motor vehicles transporting hazardous material and required to be placarded in accordance with CFR Title 49, Part 172, Subpart F, as amended.

**Q. Where will the diesel test be conducted?**

**A.** The test will be performed in conjunction with any safety or weight inspection at any official weighing area or other location designated by the Commissioner.

**Q. My truck has a different engine. Does this exempt me from testing?**

**A.** No, the vehicle will be tested according to the year of the vehicle.

**Q. What type of test will be used and how is the test performed?**

**A.** DMV has adopted the "Snap Acceleration Test" (Society of Automotive Engineers J1667 Recommended Practice).

1. Wheels are chocked for safety.
2. The exhaust pipe diameter is taken into account.
3. Test equipment is inserted into the exhaust stack.
4. The brakes are disengaged to activate all emissions control equipment.
5. The transmission is placed into neutral.
6. The accelerator is rapidly depressed and held at governed speed for a few seconds, then returned to idle. This is repeated a few times while the equipment measures the opacity of the smoke. The final result will be the average of the last three readings.
7. The total test time is typically no longer than 15 minutes.

**Q. What standards are used to determine if a vehicle passes/fails?**

**A.** The Department of Environmental Protection has adopted the following standards of minimum exhaust emissions for diesel-powered commercial motor vehicles:

<u>Model Year of Truck</u>	<u>Opacity Standard</u>
1991 and Newer	40 percent
1974 to 1990	55 percent
1973 and Older	70 percent

**Q. If my vehicle does not pass, what will happen?**

**A.** If a vehicle does not pass the minimum exhaust emissions as set forth by the DEP, the vehicle operator will be issued an infraction: \$300 for the first offense and \$500 for the second and any subsequent offenses. In addition to the infraction, the owner of the vehicle will have to submit to the DMV documentation that the vehicle has been repaired within 45 days of the test date. Failure to repair the vehicle within the required 45 day period will lead to the suspension of the vehicle's registration.

**Q. My truck is old. What can I do?**

**A.** Engine problems that cause exhaust smoke can occur in both new trucks as well as old trucks. Consequently, proper maintenance is essential in reducing smoke emissions, maximizing fuel efficiency and enhancing the longevity of your engine. Vehicles properly maintained and in a good state of tune should pass.

